

AMENDMENTS TO THE CLAIMS:

Replace the claims with the following rewritten versions:

1. (Currently Amended) Intravascular stent; ~~characterized in that it comprises~~ in its an inner surface an enzyme capable of catabolizing cholesterol and lipids, or cells that have been genetically modified to produce said enzyme.
2. (Currently Amended) Intravascular stent according to claim 1, ~~characterized in that wherein said enzyme is chosen among~~ comprises at least one of a lipoprotein lipase or the and a very low density lipoprotein (VLDL) receptor (VLDLDR).
3. (Currently Amended) Intravascular stent according to claim 1 ~~or 2, characterized in that the~~ wherein a material constituting the stent is chosen among different comprises a metallic alloys ~~such as stainless steel, shape memory alloys such as Ni, Ti based alloys of similar composition.~~
4. (Currently Amended) Intravascular stent according to ~~any of claims 1 to 4,~~ characterized in that wherein the inner surface is covered by an underlayer capable to bind to the enzyme or to the genetically modified cells ~~as mentioned in claim 1,~~ and, in this last case, to allow ~~the said cells~~ growth.
5. (Currently Amended) Intravascular stent according to claim 4, ~~characterized in that wherein~~ the underlayer is an nitrogen rich layer ~~such as polymers containing nitrogen and related chemical functionalities, and more particularly amorphous carbon nitrogen layer.~~
6. (Currently Amended) Intravascular stent according to claim 4 ~~or 5, characterized in that wherein~~ the enzyme ~~as defined in claim 1,~~ is immobilized on a the device surface by covalent binding with the nitrogen rich layer wherein the nitrogen rich layer is a polymer layer.

7. (Currently Amended) Intravascular stent according to claim ~~4 or 5~~, ~~characterized in that~~wherein the genetically modified cells ~~as defined in claim 1~~, are bound to the layer, if necessary via a fibronectine coating.

8. (Currently Amended) Intravascular stent according to ~~any one of claims 1 to 5 or 7~~, ~~characterized in that~~wherein the genetically modified cells ~~are chosen among~~comprise endothelial cells.

9. (Currently Amended) Intravascular stent according to claim 8, ~~characterized in that~~wherein the genetically modified cells ~~are chosen among~~comprise human normal umbilical vein endothelial cells; or human autologous immortalized microvascular cells.

10. (Currently Amended) Intravascular stent according to claim ~~8 or 9~~, ~~characterized in that~~wherein the endothelial cells are transformed with an adeno-associated viral vector (AAV) containing the sequence encoding the enzyme ~~as defined in claim 1 or 2~~.

11. (Currently Amended) Use of an intravascular stent according to ~~any of claims 1 to 10~~, in the ~~frame of the~~ treatment or prevention of obstructive arteriosclerotic lesions in the coronary and peripheral blood vessels, or prevention of restenosis in intra coronaric stents.

12. (New) Intravascular stent according to claim 3, wherein the metallic alloy comprises at least one of stainless steel and shape memory alloys such as Ni, Ti based alloys of similar composition.

13. (New) Intravascular stent according to claim 5, wherein the nitrogen rich layer comprises polymers containing nitrogen and related chemical functionalities.

14. (New) Intravascular stent according to claim 5, wherein the nitrogen rich layer comprises an amorphous carbon nitrogen layer.